GREYSTONE®

Environmental Consultants, Inc.

January 12, 2001

Jan McKee
U.S. Fish and Wildlife Service
Colorado Field Office
755 Parfet Street, Suite 361
Lakewood, Colorado 80215

RE: QUALIFICATIONS OF GREYSTONE BIOLOGIST TO CONDUCT UTE LADIES' TRESSES ORCHID SURVEYS (COLORAOD BUTTERFLY PLANT

Dear Jan:

Attached are qualifications for Tom Ryon and Matt Schweich to conduct Ute Ladies'-tresses orchid and Colorado butterfly plant surveys. I have also included qualifications for Sara Davis as she is in training to help with surveys this summer.

I will be sending a letter further explaining the Fort Collins project wetlands in the next few days.

If you have any questions, please call me at (303) 850-0930.

Thanks,

Thomas Ryon
Staff Ecologist

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Thomas Ryon

Botany/Threatened and Endangered Species Experience

Mr. Ryon has conducted a number of rare plant surveys and habitat assessments for vertebrate species along the Colorado Front Range Urban Corridor and elsewhere in the western United States over the last seventeen years. The following list chronicles his qualifications and experience in regards to botany/rare plant surveys especially *Spiranthes diluvialis* and *Gaura neomexicana* spp. *coloradensis*.

1984 – Graduated from Colorado State University, B.S. Wildlife Biology. Classes in Botany, Plant Classification, Natural Resource Measures, and Rangeland Ecogeography with Dr. Shaw.

1984 – Worked on the Colorado Aspen Project for the U.S. Forest Service. Helped in plant inventory and production plots of aspen understory plant communities. Also, measured bird habitat parameters and noted associated plant species.

1990 – Collected plant tissue of specific plant species for contaminant analysis at the Rocky Mountain Arsenal. This was part of a comprehensive monitoring program for ecological risk assessment.

1991 - Developed a plant community map for the Tooele Army Depot, Tooele Utah.

1992 –Conducted rare plant surveys for a baseline biological characterization for the Department of Energy. Under supervision of Dr. F.A.Harrington, conducted orchid surveys and aided in plant inventories. Also, helped in documentation of fork-tipped three awn (*Aristida basiramea*).

1994 - Conducted vegetation and wildlife surveys for the Rocky Flats. Characterized habitat for the Preble's meadow jumping mouse including plant inventories. Reviewed reports of plant surveys at Rocky Flats for the Ute ladies' tresses orchid and the Colorado butterfly plant (ESCO 1994). Watched video for training to do *Spiranthes diluvialis* surveys (Buckner? Pearl Street Business Park population).

1995 - Characterized habitat for the Preble's meadow jumping mouse including plant inventories in five sites in eastern Colorado. Visited the Boulder Turnpike *Spiranthes diluvialis* population during bloom.

1996 – Conducted *Spiranthes diluvialis* survey along Big Dry Creek for Harlan Street Alignment Project. Conducted Preble's mouse habitat characterization at Rocky Flats including plant inventory.

1997- Graduated from University of Colorado at Denver. M.S. Environmental Science/Ecology

1997 – Conducted rare plant survey at Rocky Flats. Discovered rare plant, Green Bog-orchid (*Coeloglossum viride*) at Rocky Flats with Jody Nelson, Site Botanist. Conducted Preble's mouse habitat characterization at Rocky Flats including plant inventory.

1998 – Visited the Clear Creek *Spiranthes diluvialis* population - destroyed in part by Hwy 93/6 bridge.

1999- Conducted an ecological site description in Texas for a Natural Resource Damage Mitigation project. Planned and conducted wildlife a survey of the site emphasizing TES species. Used Global Positioning System technology to create a vegetation map of the site.

2000 – Conducted rare plant survey for transmission line project in Larimer County. Observed rare plant, Bell's twinpod (*Physaria bellii*). Reported finding to the Colorado Natural Heritage Program.

Reference

ESCO 1994. Report of Findings: Ute Ladies'-Tresses and Colorado Butterfly Weed Surveys. Prepared for EG&G Rocky Flats, Jefferson County Colorado. Pp. 10 + photos, map.

Matt Schweich

Botany/Plant Ecology/Threatened, Endangered and Sensitive Status (TES) Species Experience

Mr. Schweich has conducted a wide range of botanical investigations, with a particular emphasis on Threatened, Endangered, and Sensitive Status (TES) plant species. The results of these surveys and ecological investigations, along with other materials, were used by Mr. Schweich as primary references in the preparation of National Environmental Policy Act (NEPA) documents such as Biological Assessments (BAs), Biological Evaluations (BEs), and the appropriate sections of Environmental Assessments (EAs), Environmental Impact Statements (EISs), Environmental Reports (ERs), Plans of Development (PODs), and project- and species-specific survey reports.

He served as the primary author for an Interagency Conservation Strategy for the Ash Creek Ivesia, *Ivesia paniculata*. Completion of this document involved delineation of known and potential habitat, survey of all previously unsurveyed potential habitat areas, design and implementation of a monitoring program, compilation of existing data, coordination between USDA Forest Service and USDI Bureau of Land Management resource managers, design of protection standards and guidelines, and recommendation of mitigation measures for existing and proposed impacts.

Other TES plant survey and monitoring projects he completed include: a conservation status review of the grassy-slope sedge, *Carex oreocharis*, design and implementation of a monitoring program for the long-haired star tulip, *Calochortus longebarbatus* var. *longebarbatus*; GPS/GIS mapping of all known occurrences of the Warner Mountains bedstraw, *Galium serpenticum* ssp. *warnerense*; surveys for the clay-loving buckwheat, *Eriogonum pelinophilum*, determination of potential habitat and survey for the Ute ladies'-tresses orchid, *Spiranthes diluvialis*, and Colorado butterfly plant, *Gaura neomexicana* ssp. *coloradensis*, and survey of timber sale areas, grazing allotments, mining areas, pipeline and powerline corridors, power plant sites, and a wilderness trail system for a variety of sensitive and special interest plants. All surveys included delineation of potential habitat, reporting and mapping of survey results, and plant material collection when appropriate.

Plant and rangeland ecology studies are also a major part of Mr. Schweich's experience. He was responsible for the design, completion, data analysis, and preparation of a technical paper for a two year study on the effects of livestock grazing in riparian areas on herbaceous biomass productivity and plant community species composition. He has extensive experience with rangeland monitoring and ecology. Studies he has participated in include range condition and trend, range readiness, forage utilization and livestock use patterns, and riparian condition (green-line) surveys. He also completed extensive field work, data analysis, and preparation of a technical paper for a five-year study on the effects of prescribed fire on ponderosa pine / antelope bitterbrush vegetation associations.

Ms. Davis has a wide range of botanical experience, with particular emphasis on vegetation mapping and plant species inventories. She has also conducted a wide range of botanical investigations including threatened, endangered, and sensitive status plant species surveys. All surveys include identifying, mapping and photographing of potential habitats and reporting of survey results. Other projects that have contributed to her vegetation background include rare plant mapping in northern Michigan, and rare plant surveys in Arizona, Colorado, and Illinois. Ms. Davis is familiar with orchids and has reviewed photos and reports for *Spiranthes diluvialis*. She hopes to perform *Spiranthes* surveys in the upcoming 2001 field season.